

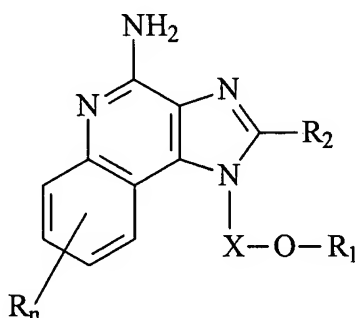
**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-33 (canceled)

34 (currently amended) A method of treating a neoplastic disease in an animal in need thereof comprising administering to the animal a therapeutically effective amount of a compound or salt of ~~claim 1 to the animal~~ of the formula (I):



(I)

wherein: X is -CHR<sub>3</sub>-, -CHR<sub>3</sub>-alkyl-, or -CHR<sub>3</sub>-alkenyl-;

R<sub>1</sub> is selected from the group consisting of:

-alkenyl;

-aryl; and

-R<sub>4</sub>-aryl;

R<sub>2</sub> is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

-aryl;

-heteroaryl;

-heterocyclyl;

-alkyl-Y-alkyl;

-alkyl-Y-alkenyl;

-alkyl-Y-aryl; and

-alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH;

-halogen;

-N(R<sub>3</sub>)<sub>2</sub>;

-CO-N(R<sub>3</sub>)<sub>2</sub>;

-CO-C<sub>1-10</sub> alkyl;

-CO-O-C<sub>1-10</sub> alkyl;

-N<sub>3</sub>;

-aryl;

-heteroaryl;

-heterocyclyl;

-CO-aryl; and

-CO-heteroaryl;

R<sub>4</sub> is alkyl or alkenyl, which may be interrupted by one or more

-O- groups;

each R<sub>3</sub> is independently H or C<sub>1-10</sub> alkyl;

Y is -O- or -S(O)<sub>0-2</sub>;

n is 0; and

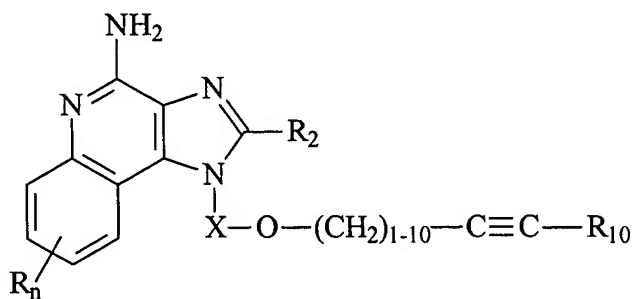
each R present is independently selected from the group consisting of C<sub>1-10</sub> alkyl,

C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl;

or a pharmaceutically acceptable salt thereof, that induces cytokine biosynthesis.

35 (canceled)

36 (currently amended) A method of treating a neoplastic disease in an animal in need thereof comprising administering to the animal a therapeutically effective amount of a compound ~~or salt of~~ claim 11 to the animal of the formula (II):



(II)

wherein X is  $-\text{CHR}_3$ -,  $-\text{CHR}_3$ -alkyl-, or  $-\text{CHR}_3$ -alkenyl-;

$\text{R}_{10}$  is selected from the group consisting of:

-H;  
-alkyl;  
-alkenyl; and  
-aryl;

$\text{R}_2$  is selected from the group consisting of:

-hydrogen;  
-alkyl;  
-alkenyl;  
-aryl;  
-heteroaryl;  
-heterocyclyl;  
-alkyl-Y-alkyl;  
-alkyl-Y-alkenyl;  
-alkyl-Y-aryl; and

-alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH;  
-halogen;  
 $-\text{N}(\text{R}_3)_2$ ;  
 $-\text{CO}-\text{N}(\text{R}_3)_2$ ;  
 $-\text{CO}-\text{C}_{1-10}$  alkyl;

\_\_\_\_\_ -CO-O-C<sub>1-10</sub> alkyl;

\_\_\_\_\_ -N<sub>3</sub>;

\_\_\_\_\_ -aryl;

\_\_\_\_\_ -heteroaryl;

\_\_\_\_\_ -heterocyclyl;

\_\_\_\_\_ -CO-aryl; and

\_\_\_\_\_ -CO-heteroaryl;

\_\_\_\_\_ n is 0;

\_\_\_\_\_ Y is -O- or -S(O)<sub>0-2</sub>;

\_\_\_\_\_ each R<sub>3</sub> is independently H or C<sub>1-10</sub> alkyl; and

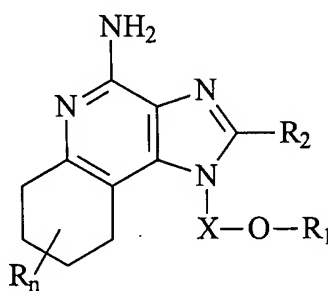
\_\_\_\_\_ each R present is independently selected from the group consisting of C<sub>1-10</sub> alkyl,

\_\_\_\_\_ C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl;

\_\_\_\_\_ or a pharmaceutically acceptable salt thereof, that induces cytokine biosynthesis.

37-39 (canceled)

40 (currently amended) A method of treating a neoplastic disease in an animal in need thereof comprising administering to the animal a therapeutically effective amount of a compound ~~or salt of~~ claim 21 to the animal of the formula (III):



(III)

wherein: \_\_\_\_\_ X is -CHR<sub>3</sub>-, -CHR<sub>3</sub>-alkyl-, or -CHR<sub>3</sub>-alkenyl-;

\_\_\_\_\_ R<sub>1</sub> is selected from the group consisting of:

\_\_\_\_\_ -aryl;

\_\_\_\_\_ -alkenyl; and

-R<sub>4</sub>-aryl;

R<sub>2</sub> is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

-aryl;

-heteroaryl;

-heterocyclyl;

-alkyl-Y-alkyl;

-alkyl-Y-aryl;

- alkyl-Y- alkenyl; and

- alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH;

-halogen;

-N(R<sub>3</sub>)<sub>2</sub>;

-CO-N(R<sub>3</sub>)<sub>2</sub>;

-CO-C<sub>1-10</sub> alkyl;

-CO-O-C<sub>1-10</sub> alkyl;

-N<sub>3</sub>;

-aryl;

-heteroaryl;

-heterocyclyl;

-CO-aryl; and

-CO-heteroaryl;

R<sub>4</sub> is alkyl or alkenyl, which may be interrupted by one or more

-O- groups;

each R<sub>3</sub> is independently H or C<sub>1-10</sub> alkyl;

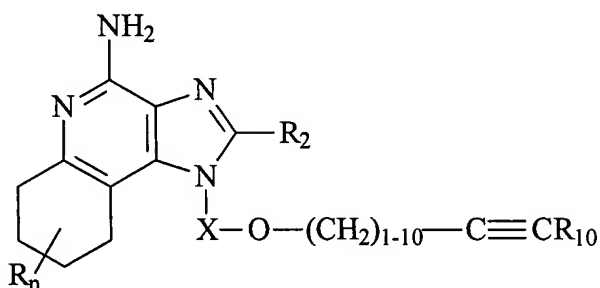
Y is -O- or -S(O)<sub>0-2</sub>;

n is 0; and

each R present is independently selected from the group consisting of C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl;  
or a pharmaceutically acceptable salt thereof, that induces cytokine biosynthesis.

41-45 (canceled)

46 (new) A pharmaceutical composition comprising a therapeutically effective amount of a compound of the formula (IV):



(IV)

wherein: X is  $-CHR_3-$ ,  $-CHR_3$ -alkyl-, or  $-CHR_3$ -alkenyl-;

$R_{10}$  is selected from the group consisting of:

- H;
- alkyl;
- alkenyl; and
- aryl;

$R_2$  is selected from the group consisting of:

- hydrogen;
- alkyl;
- alkenyl;
- aryl;
- heteroaryl;
- heterocyclyl;
- alkyl-Y-alkyl;
- alkyl-Y-aryl;

-alkyl-Y- alkenyl; and

- alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH;

-halogen;

-N(R<sub>3</sub>)<sub>2</sub>;

-CO-N(R<sub>3</sub>)<sub>2</sub>;

-CO-C<sub>1-10</sub> alkyl;

-CO-O-C<sub>1-10</sub> alkyl;

-N<sub>3</sub>;

-aryl;

-heteroaryl;

-heterocyclyl;

-CO-aryl; and

-CO-heteroaryl;

each R<sub>3</sub> is independently H or C<sub>1-10</sub> alkyl;

Y is -O- or - S(O)<sub>0-2</sub>;

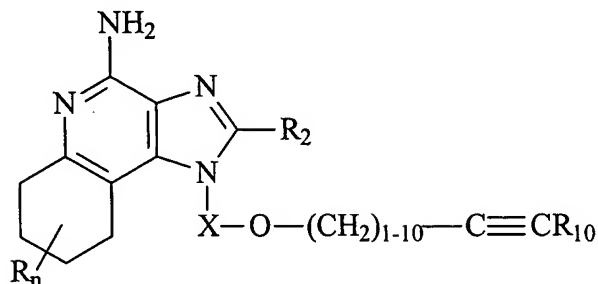
n is 0; and

each R present is independently selected from the group consisting of C<sub>1-10</sub> alkyl,

C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl;

or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.

47 (new) A method of inducing cytokine biosynthesis in an animal comprising administering a compound of the formula (IV):



(IV)

wherein: X is  $-\text{CHR}_3-$ ,  $-\text{CHR}_3\text{-alkyl-}$ , or  $-\text{CHR}_3\text{-alkenyl-}$ ;

$\text{R}_{10}$  is selected from the group consisting of:

- H;
- alkyl;
- alkenyl; and
- aryl;

$\text{R}_2$  is selected from the group consisting of:

- hydrogen;
- alkyl;
- alkenyl;
- aryl;
- heteroaryl;
- heterocyclyl;
- alkyl-Y-alkyl;
- alkyl-Y-aryl;
- alkyl-Y-alkenyl; and
- alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:
  - OH;
  - halogen;
  - $-\text{N}(\text{R}_3)_2$ ;
  - $-\text{CO}-\text{N}(\text{R}_3)_2$ ;



-CO-C<sub>1-10</sub> alkyl;  
 -CO-O-C<sub>1-10</sub> alkyl;  
 -N<sub>3</sub>;  
 -aryl;  
 -heteroaryl;  
 -heterocyclyl;  
 -CO-aryl; and  
 -CO-heteroaryl;

each R<sub>3</sub> is independently H or C<sub>1-10</sub> alkyl;

Y is -O- or -S(O)<sub>0-2</sub>;

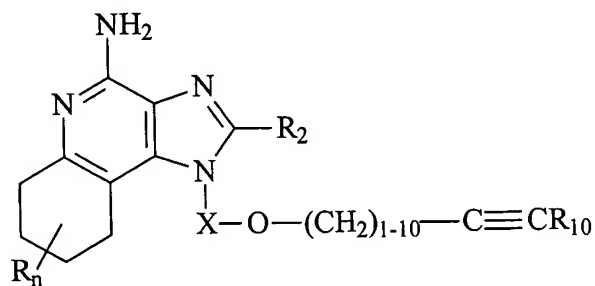
n is 0; and

each R present is independently selected from the group consisting of C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl;

or a pharmaceutically acceptable salt thereof, to the animal in an amount effective for cytokine induction.

48 (new) The method of claim 47 wherein the cytokine is IFN- $\alpha$ .

49 (new) A method of treating a viral disease in an animal in need thereof comprising administering to the animal a therapeutically effective amount of a compound of the formula (IV):



(IV)

wherein: X is -CHR<sub>3</sub>-, -CHR<sub>3</sub>-alkyl-, or -CHR<sub>3</sub>-alkenyl-;

R<sub>10</sub> is selected from the group consisting of:

-H;  
-alkyl;  
-alkenyl; and  
-aryl;

R<sub>2</sub> is selected from the group consisting of:

-hydrogen;  
-alkyl;  
-alkenyl;  
-aryl;  
-heteroaryl;  
-heterocyclyl;  
-alkyl-Y-alkyl;  
-alkyl-Y-aryl;  
-alkyl-Y- alkenyl; and

- alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH;  
-halogen;  
-N(R<sub>3</sub>)<sub>2</sub>;  
-CO-N(R<sub>3</sub>)<sub>2</sub>;  
-CO-C<sub>1-10</sub> alkyl;  
-CO-O-C<sub>1-10</sub> alkyl;  
-N<sub>3</sub>;  
-aryl;  
-heteroaryl;  
-heterocyclyl;  
-CO-aryl; and  
-CO-heteroaryl;

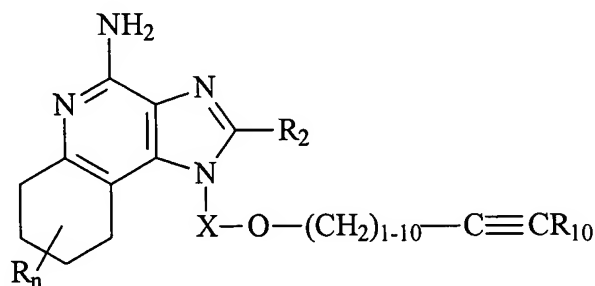
each R<sub>3</sub> is independently H or C<sub>1-10</sub> alkyl;

Y is -O- or - S(O)<sub>0-2</sub>;

n is 0; and

each R present is independently selected from the group consisting of C<sub>1-10</sub> alkyl, C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl;  
or a pharmaceutically acceptable salt thereof, that induces cytokine biosynthesis.

50 (new) A method of treating a neoplastic disease in an animal in need thereof comprising administering to the animal a therapeutically effective amount of a compound of the formula (IV):



(IV)

wherein: X is -CHR<sub>3</sub>-, -CHR<sub>3</sub>-alkyl-, or -CHR<sub>3</sub>-alkenyl-;

R<sub>10</sub> is selected from the group consisting of:

-H;  
-alkyl;  
-alkenyl; and  
-aryl;

R<sub>2</sub> is selected from the group consisting of:

-hydrogen;  
-alkyl;  
-alkenyl;  
-aryl;  
-heteroaryl;  
-heterocyclyl;  
-alkyl-Y-alkyl;  
-alkyl-Y-aryl;  
-alkyl-Y-alkenyl; and

- alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

- OH;
- halogen;
- N(R<sub>3</sub>)<sub>2</sub>;
- CO-N(R<sub>3</sub>)<sub>2</sub>;
- CO-C<sub>1-10</sub> alkyl;
- CO-O-C<sub>1-10</sub> alkyl;
- N<sub>3</sub>;
- aryl;
- heteroaryl;
- heterocyclyl;
- CO-aryl; and
- CO-heteroaryl;

each R<sub>3</sub> is independently H or C<sub>1-10</sub> alkyl;

Y is -O- or -S(O)<sub>0-2</sub>;

n is 0; and

each R present is independently selected from the group consisting of C<sub>1-10</sub> alkyl,

C<sub>1-10</sub> alkoxy, hydroxy, halogen and trifluoromethyl;

or a pharmaceutically acceptable salt thereof, that induces cytokine biosynthesis.